What is claimed is:

1.   System for validating connection-related communications data collected by a digital switching exchange (20), comprising the following features:

a.   at least one test unit (40), which can be linked to the digital switching exchange (20), having

- a first memory unit for storing dedicated communications elements,

- a device for initiating the establishment of at least one dedicated test-communications connection,

- a device for producing a connection-related reference data record from the corresponding communications elements, from the starting and ending instants of the test communications connection,

- a device for transmitting the connection-related communications elements to the digital switching exchange,

b.   the digital switching exchange (20), which functions in response to the received, connection-related communications elements to establish the relevant test communications connection, including

- a device for generating at least one connection-related communications data record;

c.   a system evaluator (50) assigned to the test unit (40) and to the digital switching exchange (20), including

- a device for comparing the contents of the connection-related reference data record to the contents of each connection-related communications data record belonging thereto.

2. The test system as recited in Claim 1,
   wherein the system evaluator (50), in addition, includes
   the following features:
   a first device for converting the format of the reference
   data record into a predefined format and a second device
   for converting the format of each communications data
   record into the predefined format.

3. The test system as recited in Claim 1 or 2,
   wherein each communications data record includes a
   plurality of predefined data fields, which are each
   assigned a predefined range of values; and the system
   evaluator (50) is designed to verify the structure of the
   communications data record and to verify each data field
   to whether the communications data contained in one data
   field are within the range of values in question.

4. The test system as recited in one of Claims 1 through 3,
   wherein the system evaluator (50) has a device for
   recognizing communications data records which are
   assigned to a test communications connection, and
   the comparator can compare each of the communications
   data records that belong together to the corresponding
   reference data record.

5. The test system as recited in one of Claims 1 through 4,
   wherein the system evaluator (50) has a device for
   verifying whether each communications data record
   generated in the digital switching exchange (20) belongs
   to an established test communications connection, and/or
   whether at least one communications data record has been
   generated for an established test communications
   connection.

6. The test system as recited in one of Claims 1 through 5,
    wherein in comparing the contents of one or of a
    plurality of predefined data fields of the reference data
    record to the contents of one or a plurality of data
    fields of each corresponding communications data record,
    the comparator of the system evaluator allows for a
    preset tolerance range.

7. The test system as recited in one of Claims 1 through 6,
    wherein each test unit (40) has a buffer device for
    temporarily storing the generated reference data record,
    and the digital switching exchange has a buffer device
    for temporarily storing each generated,
    connection-related communications data record.

8. A system evaluator for use in a test system as recited in
    one of the Claims 1 through 7,
    characterized by at least one interface for linking the
    system evaluator (50) to a digital switching exchange
    (20); at least one interface for linking the system
    evaluator (50) to a test unit (40), a device for
    comparing the contents of a connection-related reference
    data record generated by the test unit (40) to the
    contents of at least one connection-related
    communications data record generated by the digital
    switching exchange (20).

9. The system evaluator as recited in Claim 8,
    wherein the system evaluator (50), in addition, includes
    the following features:
    a first device for converting the format of the reference
    data record into a predefined format and a second device
    for converting the format of each communications data
    record into the predefined format.

10. The system evaluator as recited in Claim 8 or 9, wherein each communications data record includes a plurality of predefined data fields, which are each assigned a predefined range of values; and the system evaluator (50) is designed to verify the structure of the communications data record and to verify each data field to whether the communications data contained in one data field are within the range of values in question.

11. The system evaluator as recited in one of the Claims 8 through 10, wherein the system evaluator (50) has a device for recognizing communications data records which are assigned to a test communications connection, and the comparator can compare each of the communications data records that belong together to the corresponding reference data record.

12. The system evaluator as recited in one of the Claims 8 through 11, wherein the system evaluator (50) has a device for verifying whether each communications data record generated in the digital switching exchange (20) belongs to an established test communications connection, and/or whether at least one communications data record has been generated for an established test communications connection.

13. The system evaluator as recited in one of the Claims 8 through 12, wherein in comparing the contents of one or of a plurality of predefined data fields of the reference data record to the contents of one or a plurality of data fields of each corresponding communications data record, the comparator of the system evaluator allows for a preset tolerance range.

14. A method for validating connection-related communications data collected by a digital switching exchange (20), comprising the following method steps:

a. storing a plurality of communications elements in at least one test unit (40) that is able to be linked to a digital switching exchange;

b. initiating the establishment of at least one dedicated test-communications connection at the test unit (40);

c. transmitting the connection-related communications elements to the digital switching exchange (20);

d. establishing the relevant test communications connection in response to the received, connection-related communications elements;

e. generating a reference data record from the connection-related communications elements, from the beginning and ending instants of the corresponding communications connection in the test unit (40);

f. generating at least one connection-related communications data record in the digital switching exchange (20);

g. following the connection cleardown, the reference data record and each communications data record of the corresponding test communications connection are transmitted to a system evaluator (50).

h. the contents of the connection-related reference data record are compared in the system evaluator to the contents of each communications data record belonging to it.

15. The method as recited in Claim 14, wherein, prior to the comparison step h, the format of the reference data record and the format of each communications data record are converted into a uniform format.

16. The method as recited in Claim 14 or 15,
    wherein each communications data record includes a
    plurality of data fields; a predefined range of values is
    assigned to each data field; and, in the system evaluator
    (50), the structure of each communications data record
    and of each data field is checked to determine whether
    the communications elements contained in each data field
    are within the range of values in question.

17. The method as recited in Claim 16,
    wherein a communications data record is indicated as
    being faulty when its contents cannot be assigned to the
    contents of the corresponding reference data record, when
    its structure does not correspond to the predetermined
    structure, or when the communications data contained in a
    data field do not lie within the range of values assigned
    to the data field.